

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>BP110651/OPS</b>	<b>FOR FURTHER ACTION</b> See Form PCT/IPEA/416	
International application No. <b>PCT/FI2004/000707</b>	International filing date ( <i>day/month/year</i> ) <b>22-11-2004</b>	Priority date ( <i>day/month/year</i> ) <b>20-11-2003</b>
International Patent Classification (IPC) or national classification and IPC <b>See Supplemental Box</b>		
Applicant <b>Stora Enso Oyj et al</b>		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
  - a. ☒ (*sent to the applicant and to the International Bureau*) a total of 3 sheets, as follows:
 

☒ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).  
☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
  - b. ☐ (*sent to the International Bureau only*) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:
 

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application

Date of submission of the demand  <b>16-09-2005</b>	Date of completion of this report  <b>17-03-2006</b>
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**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Continuation of: **Cover sheet**

**International patent classification (IPC)**

**B65D 5/38** (2006.01)

**B65D 50/04** (2006.01)

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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## Box No. I Basis of the report

1. With regard to the language, this report is based on:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into \_\_\_\_\_  
which is the language of a translation furnished for the purposes of:
- ☐ international search (Rules 12.3(a) and 23.1(b))
- ☐ publication of the international application (Rule 12.4(a))
- ☐ international preliminary examination (Rules 55.2(a) and/or 55.3(a))

2. With regard to the elements of the international application, this report is based on (
- replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*
- ):

- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1 - 14 \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- pages \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- pages\* 15 - 17 \_\_\_\_\_ received by this Authority on 20-02-2006
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the drawings:
- pages 1 - 7 \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

- 3.
- ☐
- The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

- 4.
- ☐
- This report has been established as if (some of) the amendments annexed to this report and listed below had not been made; since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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**Box No. V** Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	<u>1-15</u>	YES
	Claims		NO
Inventive step (IS)	Claims	<u>1-15</u>	YES
	Claims		NO
Industrial applicability (IA)	Claims	<u>1-15</u>	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

## Documents cited in the International Search Report:

D1: EP 1260454 A2  
D2: WO 03066323 A1  
D3: US 3654842 A  
D4: US 4401210 A  
D5: US 6491211 B1  
D6: WO 0238454 A1  
D7: WO 03101840 A1

The cited documents represent the general state of the art.  
The invention defined in claims 1-15 is not disclosed by any of these documents.

The cited prior art does not give any indication that would lead a person skilled in the art to the claimed carton package and the use thereof. Therefore, the claimed invention is not obvious to a person skilled in the art.

Accordingly, the invention defined in claims 1-15 is novel and is considered to involve an inventive step. The invention is industrially applicable.

## Claims

1. A child resistant carton package, the package comprising an outer sleeve (2) of fiber-based material, an insert (3) that can be slidingly drawn out of the sleeve,  
5 the insert carrying the packaged product, and a locking mechanism (7, 9) between the sleeve and the insert, for preventing a child from drawing the insert out of the sleeve, characterized in that the outer sleeve (2) is made of board reinforced on both sides thereof with an extrusion coated layer of tough polymer to increase its resistance to tearing.
- 10 2. A carton package according to claim 1, characterized in that the board has a coating layer of a tough polymer selected from the group consisting of polyester, polyamide, polypropene and polycarbonate.
- 15 3. A carton package according to claim 2, characterized in that the coating polymer is polyethylene terephthalate (PET).
4. A carton package according to any one of the preceding claims, characterized in that the coating comprises an inner reinforcement layer of a tough polymer and  
20 an outer heat seal polymer layer.
5. A carton package according to any one of the preceding claims, characterized in that the insert (3) is made of the same polymer extrusion coated board as the outer sleeve (2).
- 25 6. A carton package according to any one of the preceding claims, characterized in that the cutting edges at least on the outside of the outer sleeve (2) are provided with polymer shield against delamination of the board.
- 30 7. A carton package according to any one of the preceding claims, characterized in that the board is delaminable along a fiber-based material layer in case of failure of a cutting edge.
- 35 8. A carton package according to any one of the preceding claims, characterized in that the sleeve (2) comprises four longitudinal side walls (2a, 2b, 2c, 2d) parallel to the sliding direction (S) of the insert (3) and an open end (4) to let the insert be drawn out of the sleeve, and that the locking mechanism comprises a first stop tab (7a) in the sleeve, the first stop tab extending from a first (2c) to a second (2a) of

the longitudinal walls and being at least partly separated from the first longitudinal wall and the second longitudinal wall, and a first locking edge (9a) provided in the insert, the insert being prevented, upon contact of the first locking edge with the first stop tab, from moving out of the sleeve, while the first locking edge can, through elastic deforming of a part of the insert by a user, be moved so that its movement past the first stop tab is made possible.

9. A carton package according to any one of the preceding claims, characterized in that the outer sleeve (2) has one or more holes (10) permitting release of the locking (7, 9) by the user's finger.

10. A carton package according to any one of the preceding claims, characterized in that the outer sleeve (2) has been made by folding a blank (2') of the polymer extrusion coated board and seaming overlapping parts (17, 18) of the folded blank together by heat sealing the coating polymer of the board, the seams on the outside of the sleeve having the edge of the outer board part (17) protected by polymeric shielding against delamination of the coated board.

11. A carton package according to claim 10, characterized in that an edge portion (15) of the outer board part (17) is skived from its inside and turned twofold, the polymer coating (13, 14) of the folded portion forming the delamination shield and at least part of the heat seal (19) between the overlapping inner and outer board parts (17, 18) at the seam.

12. Use of polymer extrusion coated board (11) which is coated on both sides with a tough polymer, for a child resistant carton package for a pharmaceutical or like dangerous product, the package comprising an outer sleeve (2), a slidable insert (3) and a locking mechanism (7, 9) between the outer sleeve and the insert.

13. Use of polyethylene terephthalate (PET) coated board (11) in accordance with claim 12.

14. Use of polymer extrusion coated board having an inner layer of a tough polymer selected from the group consisting of polyester, polyamide, polypropene and polycarbonate and an outer heat seal layer of polyolefine, for a child resistant carton package in accordance with claim 12.

15. Use of polymer extrusion coated board (11) in accordance with any one of claims 12 – 14 for the outer sleeve (2), the slidable insert (3) and the locking mechanism parts (7, 9) of the carton package.